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10/562,553	04/03/2006	Akio Morozumi	032865-027	8222

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EXAMINER

SNYDER, STEVEN G

ART UNIT	PAPER NUMBER
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2184

NOTIFICATION DATE	DELIVERY MODE
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10/16/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/562,553	Applicant(s) MOROZUMI ET AL.	
	Examiner STEVEN G. SNYDER	Art Unit 2184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in response to communication filed on July 2, 2008.

Status of Claims

Claims 10 to 18 are pending, of which claim 10 is in independent form.

Claim Objections

In light of applicant's amendments to claim 10, the examiner withdraws the objection to claim 10 and its dependent claims.

Specification

Applicant's amendments to the abstract and the specification have been received and entered.

Response to Arguments

1. Applicant's arguments with respect to claims 10 – 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 12, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahajan, U.S. Patent 5,404,528 (hereinafter referred to as Mahajan) in view of Cassagnol et al., U.S. Patent 6,438,666 (hereinafter referred to as Cassagnol).

Referring to claim 10, Mahajan discloses “A multipurpose semiconductor integrated circuit device comprising: a plurality of types of input/output interfaces” (Fig. 2 along with column 2 lines 45 – 56); and “an interpreter capable of executing the script file” (Fig. 2 there is a script interpreter embodied as a program that is stored in the memory120).

Also, Mahajan discloses the limitation of a memory including a file storage region for storing a script file defining processes relating to data inputted and/or outputted through the plurality of types of input/output interfaces using a script language and firmware” (Fig. 2 memory 120, scripts).

Mahajan further discloses a file management system that admits accessing the file storage region of the memory through at least one of the plurality of types of input/output interfaces (Fig. 2 and Fig. 3).

Mahajan does not appear to explicitly disclose the memory “storing firmware in a non-volatile manner, the firmware including program modules for functioning of an application layer.”

However, Cassagnol discloses a non-volatile memory 14, which stores code (Fig. 2 along with column 6 lines 18 – 38). Also, Cassagnol discloses the apparatus is

Art Unit: 2184

provided with authentication algorithms relying on MAC values (column 7 lines 39 – 62) and the contents of memory may be updated by the processor to develop a new CBC-MAC value and write this new value to memory for future authentication use (column 7 line 63 – column 8 line 6).

Further, neither Mahajan nor Cassagnol appears to explicitly disclose the memory being a flash memory.

However, Cassagnol discloses “it will be appreciated that the non-volatile memory 14 can be implemented in many ways” (column 6 lines 30 – 35). Therefore, since flash memory is non-volatile memory, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize flash memory for the non-volatile memory.

Also, Mahajan does not appear to explicitly disclose a file management system “being configured to allow a user to handle the script file without exposing the firmware.”

However, Cassagnol discloses memory management unit 38 and EEPROM access logic 34 (Figs. 2 and 3). Also, Cassagnol discloses not exposing firmware to a user outside of a secure environment (column 5 lines 48 – 51) and the security of the software or firmware is always maintained (column 6 lines 4 – 5). Cassagnol further discloses the processor enforcing security cells, which define whether access to sensitive data is permitted (column 6 lines 39 – 62). Cassagnol’s user mode cell permits no access to sensitive data.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Cassagnol’s method of enforcing memory accessing

Art Unit: 2184

permission rules with Mahajan's invention, which discloses memory containing applications and scripts (Fig. 2).

Mahajan and Cassagnol are analogous art because they are from the same field of endeavor, which is accessing memory.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mahajan and Cassagnol before him or her, to modify the teachings of Mahajan to include the teachings of Cassagnol so that access to memory would be managed based on permission rules.

The motivation for doing so would have been to increase security of sensitive information (as described by Cassagnol in column 5 lines 3 – 12).

Therefore, it would have been obvious to combine Cassagnol with Mahajan to obtain the invention as specified in the instant claim.

As per claim 12, Mahajan discloses “a plurality of script files are stored in the file storage region” (Fig. 2 scripts in memory 120) and “the multipurpose semiconductor integrated circuit device further comprises a program management system that monitors occurrences of events, selects one of the plurality of script files that is associated with an event that has occurred, and causes a selected script file to be executed by the interpreter” (Fig. 3, events 24 cause a script correlation list 19a to choose one of the scripts, which is then executed by the interpreter 19).

As per claim 15, Mahajan discloses accessing “the file storage region as a mass storage class” (Fig. 2 mass storage memory 120). Further, Mahajan discloses a LAN interface that connects the system to a local area network (See Fig. 2). Also, in light of applicant’s specification, specifically paragraph [0016], an example of a PC interface is a USB interface. It is known in the art that network connections are often wired connections that could use USB cables and connectors. This meets the limitation of the instant claim that states, “one of the plurality of types of input/output interfaces is a PC interface for connecting to a computer terminal.”

As per claim 17, Mahajan discloses a LAN interface that connects the system to a local area network (See Fig. 2). It is known in the art that network connections are often wired connections using Ethernet cables or USB cables and connectors. This meets the limitation of the instant claim that states, “a connector connected to one of the plurality of types of input/output interfaces.”

As per claim 18, Mahajan discloses a LAN interface that connects the system to a local area network (See Fig. 2). It is known in the art that network connections are often wired connections using Ethernet cables or USB cables and connectors. This meets the limitation of the instant claim that states, “a connector connected to one of the plurality of types of input/output interfaces.” Also, as seen in Fig. 2, the system could send data to connected devices, such as a scanner 131 or a printer 132. This meets

Art Unit: 2184

the limitation of the instant claim that states, "a target device connected to one out of the plurality of types of input/output interface."

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahajan in view of Cassagnol, as applied to claims 10, 12, 15, 17, and 18 above, and further in view of Steinberg et al., U.S. Patent 6,628,325 (hereinafter referred to as Steinberg).

As per claim 11, Mahajan discloses "one of the plurality of types of input/output interfaces is a network interface" (Fig. 2 LAN interface 115 to a local area network).

Neither Mahajan nor Cassagnol appears to explicitly disclose "a network interface that is accessed based on an address on a computer network and supports at least one network protocol that is valid for the computer network, another one of the plurality of types of input/output interfaces is a serial interface that supports serial input/outputs, and the multipurpose semiconductor integrated circuit device further comprises a transfer means for transferring data between the network interface and the serial interface."

However, Steinberg discloses a device that can be used to connect a camera to a network. This device includes a serial port and a network communications port (column 2 lines 39 – 48). Also, Steinberg achieves the aspect of structuring the data for transmission over a particular network. Further, Steinberg shows how IP addresses are

Art Unit: 2184

used to determine the destination of the data (Fig. 7). Still further, Steinberg achieves the aspect of the device capable of connecting to a camera by way of a serial port, and connecting to a network interface (Fig. 4). Finally, Steinberg achieves the aspect of the device being capable of converting data to fit different formats (Fig. 8).

Mahajan, Cassagnol, and Steinberg are analogous art because they are from the same field of endeavor, which is accessing data in memory.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mahajan, Cassagnol, and Steinberg before him or her, to modify the teachings of Mahajan and Cassagnol to include the teachings of Steinberg so that the system would have the capability of connecting to a serial port and a network interface, and converting between the two formats so that data received on the serial port can be transmitted via the network interface, and vice versa.

The motivation for doing so would have been to provide a means for connecting two devices that follow different protocols and allowing communication between the devices.

Therefore, it would have been obvious to combine Steinberg with Cassagnol and Mahajan to obtain the invention as specified in the instant claim.

5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahajan in view of Cassagnol, and further in view of Steinberg as applied to claim 11 above, and further in view of Herrero et al., U.S. Patent Application 2004/0133626 (hereinafter referred to as Herrero).

As per claim 13, Mahajan discloses a system with many interfaces, wherein one of the interfaces is a network interface (Fig. 2). Further, Mahajan discloses selecting a script file from a plurality of scripts (Fig. 3).

Cassagnol discloses an ASIC 10 with memory management unit 38 enforcing access permissions (column 14 lines 35 – 57).

Neither Mahajan nor Cassagnol appears to explicitly disclose “the multipurpose semiconductor integrated circuit device further comprises a web server system that supplies at least one web output file stored in the file storage region via the network interface in accordance with HTTP protocol, and the web server system supports CGI and/or SSI and the program management system selects a script file designated using CGI and/or SSI.”

However, Steinberg discloses storing data and placing the data on the web (Fig. 16). Steinberg also achieves the aspect of following the TCP/IP protocol (Fig. 7).

Mahajan, Cassagnol, and Steinberg are analogous art because they are from the same field of endeavor, which is accessing data in memory.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mahajan, Cassagnol, and Steinberg before him or her, to modify the teachings of Mahajan and Cassagnol to include the teachings of Steinberg so that the system would have the capability of connecting to a serial port and a network

Art Unit: 2184

interface, and converting between the two formats so that data received on the serial port can be transmitted via the network interface, and vice versa.

The motivation for doing so would have been to provide a means for connecting two devices that follow different protocols and allowing communication between the devices.

Also neither Mahajan nor Cassagnol nor Steinberg appears to explicitly disclose “the web server system supports CGI and/or SSI and the program management system selects a script file designated using CGI and/or SSI.”

However, Herrero discloses a web server that accepts CGI and SSI requests (page 5 table in the right column, typeX).

Mahajan, Cassagnol, Steinberg, and Herrero are analogous art because they are from the same field of endeavor, which is accessing data in memory.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mahajan, Cassagnol, Steinberg, and Herrero before him or her, to modify the teachings of Mahajan, Cassagnol, and Steinberg to include the teachings of Herrero so that web server that accepts CGI and SSI requests is used to place data on the web.

The motivation for doing so would have been to provide a means for connecting the system to the internet.

Therefore, it would have been obvious to combine Herrero and Steinberg with Cassagnol and Mahajan to obtain the invention as specified in the instant claim.

As per claim 14, it is known in the art that interface information, such as address or identification information, can be obtained by running a process on a processor that is connected to the interface. This information could then be used in any manner desired by the user, such as displaying it on the web, as described in claim 13.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahajan in view of Cassagnol, as applied to claims 10, 12, 15, 17, and 18 above, and further in view of Kaji, Japanese Patent Application 2003-108539 (hereinafter referred to Kaji).

As per claim 16, Mahajan discloses, in Fig. 3, choosing a script from a plurality of scripts.

Neither Mahajan nor Cassagnol appears to explicitly disclose “the multipurpose semiconductor integrated circuit device further comprises a timer function and an SNTP client function for obtaining time information via the network interface and synchronizing the timer function, and the program management system selects one of the plurality of script files based on time information of the timer function.”

However, Kaji discloses synchronizing timing between a client and a server. This is done by transmitting a command and performing calculations (translated abstract of Kaji).

Art Unit: 2184

Mahajan, Cassagnol, and Kaji are analogous art because they are from the same field of endeavor, which is accessing data in memory.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mahajan, Cassagnol, and Kaji before him or her, to modify the teachings of Mahajan and Cassagnol to include the teachings of Kaji so that timing information is used to select a script.

The motivation for doing so would have been to provide a means for determining which script is best suited for the current task.

Therefore, it would have been obvious to combine Kaji with Cassagnol and Mahajan to obtain the invention as specified in the instant claim.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application **2005/0172094** discloses selectively granting memory access.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2184

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN G. SNYDER whose telephone number is (571)270-1971. The examiner can normally be reached on Mon. - Thurs. 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2184

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.S.

/Alford W. Kindred/
Supervisory Patent Examiner, Art Unit 2181